

IN THE CLAIMS:

Please cancel original claims 1-6 and add new claims 7-28 as follows:

7. (New) A method of manufacturing a semiconductor device comprising:
providing an amorphous semiconductor film with a metal element for promoting crystallization of said semiconductor film;
heating said amorphous semiconductor film to crystallize said amorphous semiconductor film;
forming a metal element diffusion film comprising a semiconductor directly on the crystallized semiconductor film;
diffusing the metal element from the crystallized semiconductor film into the metal element diffusion film; and
removing the metal element diffusion film after the step of diffusing the metal element.

8. (New) The method of claim 7 wherein said metal element diffusion film is an amorphous silicon film.

9. (New) The method of claim 7 wherein said metal element diffusion film is a polycrystalline silicon film.

10. (New) The method of claim 7 wherein said metal element diffusion film is an amorphous $\text{Si}_x\text{Ge}_{1-x}$ film where $0 < x < 1$.

11. (New) The method of claim 7 wherein said metal element is at least one of Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt, Cu and Au.

12. (New) A method of manufacturing a semiconductor device comprising:
providing a selected portion of an amorphous semiconductor film with a metal element for promoting crystallization of said semiconductor film;

heating said amorphous semiconductor film to crystallize said amorphous semiconductor film wherein the crystallization proceeds from said selected portion laterally;

forming a metal element diffusion film comprising a semiconductor directly on the crystallized semiconductor film;

diffusing the metal element from the crystallized semiconductor film into the metal element diffusion film; and

removing the metal element diffusion film after the step of diffusing the metal element.

13. (New) The method of claim 12 wherein said metal element diffusion film is an amorphous silicon film.

14. (New) The method of claim 13 wherein said metal element diffusion film is a polycrystalline silicon film.

15. (New) The method of claim 13 wherein said metal element diffusion film is an amorphous $\text{Si}_x\text{Ge}_{1-x}$ film where $0 < x < 1$.

16. (New) The method of claim 15 wherein said metal element is at least one of Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt, Cu and Au.

17. (New) A method of manufacturing a semiconductor device comprising:

providing an amorphous semiconductor film with a metal element for promoting crystallization of said semiconductor film;

heating said amorphous semiconductor film to crystallize said amorphous semiconductor film;

forming a metal element diffusion film comprising a semiconductor directly on the crystallized semiconductor film;

diffusing the metal element from the crystallized semiconductor film into the metal element diffusion film by irradiating the crystallized semiconductor film with laser; and

removing the metal element diffusion film after the step of diffusing the metal element.

18. (New) The method of claim 17 wherein said metal element diffusion film is an amorphous silicon film.

19. (New) The method of claim 17 wherein said metal element diffusion film is a polycrystalline silicon film.

20. (New) The method of claim 17 wherein said metal element diffusion film is an amorphous $\text{Si}_x\text{Ge}_{1-x}$ film where $0 < x < 1$.

21. (New) The method of claim 17 wherein said metal element is at least one of Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt, Cu and Au.

22. (New) A method of manufacturing a semiconductor device comprising:

providing an amorphous semiconductor film with a metal element for promoting crystallization of said semiconductor film;

heating said amorphous semiconductor film to crystallize said amorphous semiconductor film;

forming an etching stopper film on the crystallized semiconductor film;

forming a metal element diffusion film comprising a semiconductor over the crystallized semiconductor film with the etching stopper film interposed therebetween;

diffusing the metal element from the crystallized semiconductor film into the metal element diffusion film by irradiating the crystallized semiconductor film with laser; and

removing the metal element diffusion film after the step of diffusing the metal element.

23. (New) The method of claim 22 wherein said metal element diffusion film is an amorphous silicon film.

24. (New) The method of claim 22 wherein said metal element diffusion film is a polycrystalline silicon film.

25. (New) The method of claim 22 wherein said metal element diffusion film is an amorphous $\text{Si}_x\text{Ge}_{1-x}$ film where $0 < x < 1$.

26. (New) The method of claim 22 wherein said metal element is at least one of Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt, Cu and Au.

27. (New) The method of claim 22 wherein said etching stopper film comprises silicon nitride.

28. (New) The method of claim 22 wherein said etching stopper film comprises silicon oxide.